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ABSTRACT

A literature review is presented on four alternative models of delivering special services to learning-disabled students. The literature search was conducted to identify pedagogically sound, effective, and efficient program approaches as alternatives to resource room programs. The four models identified from a search of the Canadian, American, and British literature, are: consulting teacher model, resource/consulting model, problem-solving teams, and team teaching model. For each model, the following components are discussed: model characteristics, historical background, philosophy underlying the model, types of services, conditions for the success of the model, evaluation studies on the model, and limitations of the model. The review concludes that the ideal model would be an incorporation of the various models by capitalizing on the best elements of each. (JDD)

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ALTERNATIVE SERVICE DELIVERY MODELS FOR LEARNING DISABLED STUDENTS

Maria Yau

#188

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ALTERNATIVE SERVICE DELIVERY MODELS FOR LEARNING DISABLED STUDENTS

Maria Yau

#188

DECEMBER 1988

FOREWORD

This study is an extensive literature review on four alternative models of delivering special services to Learning Disabled (LD) students. Obviously, the intended audience of this report is teachers of LD students and school administrators who need detailed information on each model. However, the various models and concepts discussed in this study may also be of interest to other educators who are concerned with increasing, improving or modifying delivery of program to such groups as gifted students, behavioural students, or English as Second Language (ESL) students. Readers who would prefer a brief overview of these alternative models rather than the extensive detail of this paper may refer to our March 1989 issue of Scope newsletter.

Executive Summary

In recent years, the Toronto Board of Education has witnessed a rapidly growing number of students who are identified as Learning Disabled (LD) requiring special attention and assistance. It has become increasingly difficult to expand the current resource-room programs to meet the ever-growing demands for LD services. In response to this concern, in the fall of 1987 the Special Education Department requested Research Services to conduct an extensive literature search for alternative service delivery models that would help accommodate larger numbers of LD students both effectively and efficiently. It should be stressed that cost and efficiency are <u>not</u> the sole concern of this report. Pedagogically sound and effective programming is indeed the major emphasis throughout the study.

With this in mind, four alternative models were identified. They are:

1. <u>Consulting Teacher Model:</u> - Resource teachers who are trained to become consulting teachers provide consultative support services to regular classroom teachers. The idea is to have regular education teachers assist their LD students within the mainstream environment instead of withdrawing students to the resource room for help. The support services include one-to-one consultation, workshops and formal instruction. The consulting teachers also prepare special intervention programs and materials for use by regular classroom teachers.

2. Resource/Consulting Model: - In this model, resource teachers provide both direct and indirect services to LD students. That is, they deliver resource-room instruction to severely learning disabled students on the one hand, and offer consultative support to regular classroom teachers on the other. It is a compromise between the conventional resource room programs and the consulting teacher model. One of the intentions is to ensure the transfer of skills by the LD students from the resource room to the mainstream classroom.

3. Problem-solving Teams: - School-based problem-solving teams are designed to assist regular classroom teachers in dealing with their LD students before any students are referred to special education programs. The idea is to pool the expertise and resources of the regular school staff and the support personnel (e.g. school psychologists, special educators, social workers) in devising appropriate intervention strategies for helping LD students within the regular classroom environment.

4. Team Teaching Model: - A special education teacher teams up with a regular classroom teacher and participates in classroom instruction and lesson planning when necessary. The purpose is two-fold: to assist regular classroom teachers in accommodating diverse student ability levels in their classes; and to provide direct support to students who have learning disabilities.

It is evident that these four models all share an important underlying theme: the need for close collaboration between regular educators and special educators in the provision of services to LD students. This indeed reflects the current trend toward integration and mainstreaming in the field of special education. It is believed that with the active involvement of the regular classroom teachers in addition to the support of the special education teachers, more effective as well as more efficient services can be provided to a larger number of LD students.

Despite their similar premise, each of the four models has its own characteristics, emphasis and specific functions.

However, they are by no means incompatible with each other. The last chapter of this report discusses how the four models can be incorporated to form a continuum of services for LD students.

Finally, it should be emphasized that none of these alternatives is meant to provide a quick and easy solution. In respect to the models discussed in this report, these conditions - preparedness of the school staff to change, strong administrative support and commitment, and appropriate inservice support - have to be satisfied before any of the programs could be implemented successfully.

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Chapter 1

INTRODUCTION

This is a literature review of alternative models of service delivery for "learning disabled" (LD) students.[1] The intention is to give special educators, school administrators and other practitioners an overview of some of the better known service delivery options, which could be utilized to supplement or modify the current special education programs for the provision of more efficient and effective services to LD students.

1.1 Background

In 1981, the Toronto Board of Education established a workgroup to look into special education provisions for LD students in our school system. A year later, the report of the workgroup was completed with a list of recommendations. The report stressed the need for a broad continuum of support and services for LD students. Since then, a variety of LD programs have been provided by individual schools under the auspices of the Board. Some of these services include withdrawal/resource room programs, partial rotary, "monitoring",

and "maintenance", with the first two withdrawal programs being the most prevalent.[2] Indeed, according to the Board's Guidelines and Procedures for Special Education Programs Secondary Schools (1985), every school in Toronto offers resource room/withdrawal services to its LD students. Although no empirical data are available concerning the efficacy of these withdrawal programs, there is anecdotal evidence - such as verbal and written support from individual parents - which points to their popularity, especially the resource room programs.

Although there are the "success" stories, Board administrators and the school principals in Toronto realize that these withdrawal services are costly in terms of staffing, as their effectiveness is predicated upon a low ratio of specially trained resource teachers to LD students. As Wixson (1980) points out in his study in the United States, there is an inverse relationship in the resource room model between group size and academic gain rate; that is, instructional effectiveness increases as the size of the instructional group decreases. In recent years, the cost factor has become a problem in light of the growing number of students being identified as LD on the one hand,[3] and declining resources as a result of the overall decreasing enrollment on the other. It has become increasingly difficult and costly for individual schools to expand their current withdrawal/resource-room programs to accommodate the ever-increasing demand for LD services. Indeed, in an executive meeting in 1987, the Toronto secondary school principals expressed their concern as follows:

> Principals ... are experiencing more and more difficulty in supplementing the staff allocation for Special Education Resource Rooms from their regular program staff allocation....
>
> The impact of declining enrollment also makes it more difficult for schools to continue to supplement the Special Education Resource Room staff allocation and continue to provide a full range of options in regular programs. (March 2, 1987)

In response to the growing concern of principals, the Special Education Department commissioned Research Services to conduct an extensive literature search for alternative service delivery models - models which both school adminstrators and special educators need to consider if the system is to provide more effective services with existing resources to larger numbers of LD students.

1.2 Sources of Information

Literature has been gathered from various sources - Canada, the United States, and Britain. The Canadian items, however, make up a small proportion of the total. Relatively little has been documented in Canada regarding specific service delivery options for special education students, while numerous research studies and journal articles on this subject have been published in the United States. British sources also make a contribution to our literature review collection. It should, however, be noted that the orientation in the British literature is different from that of the American. While most of the British materials collected discuss the need for alternative approaches and support

services, there is a general lack of formal research on specific alternative models. Hence, the majority of the data reviewed here are derived from American publications.

1.3 Four Alternative Models

From the literature reviewed, four major alternative service delivery models were identified that have been relatively well documented and studied during the last decade.[4] They are:

1. Consulting Teacher Model;
2. Resource/Consultant Model (R/CT);
3. Problem-solving Team Model (PST); and
4. Team Teaching Model.

Interestingly, all four service delivery systems place a heavy emphasis on close collaboration between regular and special educators in the provision of LD services. It is held that regular educators as well as special educators should be accountable for the educational outcomes of students with learning difficulties. This reflects the current trend toward integration and mainstreaming in special education since the mid-70s. Similar calls for integration have been echoed in Britain since the late 1970s (Merry, 1986). A cursory examination of the British literature indicates a growing awareness or adoption of the so-called "whole school" approach,

though the conventional withdrawal approach remains prevalent. Again the idea is to involve the whole school - particularly the regular teaching staff along with special education teachers - in the provision of services to students with learning difficulties (Hegarty, 1985; Moses, Hegarty & Jowett, 1987; Butt, 1986; Thomas & Jackson, 1986; Mills, 1988).[5] It is believed that with the active involvement of regular classroom teachers, a larger number of students with learning problems could be assisted.

Aside from their similar underlying tenets, the four models also share certain commonalities in terms of the general services delivered and the general conditions for their optimal implementation. Indeed, the models, especially the first three, are primarily consultation-based service delivery systems.

Notwithstanding their similarities, each model has its own characteristics, emphasis, and specific functions served. The consulting teacher model, for example, focuses on having special educators provide consultative support services to regular educators, whereas the resource/consultant option stresses the provision of both resource-room instruction to LD students and consultation support to the school staff. On the other hand, problem-solving team and team teaching models place a much stronger emphasis on teaming efforts. For instance, the problem-solving team offers a structured collaborative system wherein various personnel - regular classroom teachers, special education teachers, the school principal, parents, etc - provide regular support to classroom teachers, while the team teaching

approach concentrates on equal participation and mutual support between regular education and special education teachers in both classroom instruction and lesson planning.

Hence, the four models deserve to be indvidually presented. Since this study aims at providing an overview of alternative models rather than a handbook on service delivery, issues such as actual implementation procedures, instructional strategies and other organizational details will not be discussed. Instead, each model will be examined from the following perspectives:

- model characteristics;
- historical background;
- philosophy underlying the model;
- types of services provided;
- conditions necessary for the success of the model;
- evaluation of the effectiveness of the model; and
- limitations of the model.

The intent is to produce a comprehensive and objective analysis of the four service delivery alternatives, so that administrators, school principals and special educators can decide which model or models may be utilized to complement or modify their present service delivery systems.

Chapter 2

CONSULTING TEACHER MODEL

2.1 Model Characteristics

The consulting teacher model, sometimes known as teacher consultant model, provides indirect rather than direct services to LD students. The LD students are helped indirectly through assistance provided to their classroom teachers (Graden, Casey & Christenson, 1985). That is, LD students remain in their regular classes full-time, while regular classroom teachers are assisted and trained by school-based consulting teachers with the necessary special education skills to cope with the problems of their LD students.

Although some authors include such direct services as assistance in the regular classroom or resource-room instruction as part of the consulting teacher model (Newcomer, 1977; Gilhool & Ginn, 1982), strictly speaking the model itself is essentially one of indirect services to students (Huefner, 1988). Hence, the consulting teachers are best described as facilitators not implementors (Miller & Sabatino, 1978).[1] According to Newcomer (1977), the ultimate goal of the model is not to "remediate" a particular student's learning problems, "but to

prevent certain problems from developing and provide the regular educator with the additional skills and competencies required to undertake remedial activities independently."

2.2 Historical Background

The consulting teacher model first received attention in the professional literature in the 1970s (Haight, 1984). In 1970 McKenzie et al. published the first explication of the consulting-teacher model for mildly handicapped students. Around the same time, consulting teacher services also became operational in the State of Vermont along with the development of the Consulting Teacher Training Program at the University of Vermont (Fox, Egner, Paolucci, Perelman & McKenzie, 1973; Knight, Meyers, Paolucci-Whitcomb, Hasazi & Nevin, 1981; Reisberg & Wolf, 1986). By the 1980s they have garnered increasing attention in various departments of education and local school districts in the United States (Huefner, 1988).

According to Davies and Davies (1988), several local school authorities in England have also established the role of consultant/support teachers. However, relatively little British documentation on this model is available.

Locally, the Wellington County Separate School Board in Ontario has also adopted this approach of delivering special education service since the early 1970s.[2]

2.3 Philosophy Underlying the Model

The two central tenets behind the consulting teacher model are:

1. all but the profoundly handicapped should be placed in regular classes (full mainstreaming) (Christie, McKenzie, & Burdett, 1972); and
2. both regular and special education teachers should share responsibility for the instructional outcomes of all students (Huefner, 1988).

The consulting teacher approach is thus geared primarily to students and teachers in the mainstream, with the intent of reducing the need for pullout special education services (Graden, Casey & Christenson, 1985; Huefner, 1988).

The rise of this service delivery alternative in the United States is partly attributed to the increasing concern over the high cost of diagnosing and remediating selected students outside the regular classrooms (Reisberg & Wolf, 1986; Huefner, 1988). This concern has become more critical in the face of the fast growing number of students being identified as LD.[3]

Another force which spurs educators' interest in the model is the rising criticism of the pullout resource-room programs in the American school system. Although the resource programs are supposed to maintain the student's placement in the regular class, it has been contended that for many special education students the programs have resulted in discontinuity from the mainstream curricula (Saliva & Ysseldyke, 1985; Ysseldyke &

Algozzine, 1983; Newcomer, 1977). Some investigators further report a lack of generalization and transfer of skills, which they ascribe to:

- the lack of interaction and cooperation between the regular class teachers and the resource teachers; and, by extension,
- the lack of coordination between resource room instructional strategies and the instructional activities which occur within the regular class (Bagley, 1976; Anderson-Inman, Walker, & Purcell, 1984; Idol-Maestas, 1983; Ito, 1980; Newcomer, 1977).

It is thus suggested that special education services should shift their emphasis from mere diagnostic-remedial services to teacher consultation services. The idea is to ensure greater coordination between regular and special education so that more mildly handicapped students can profit from a variety of instructional practices delivered within the regular classroom (Stainback & Stainback, 1984; Knight, Meyers, Paolucci-Whitcomb, Hasazi, & Nevin, 1981; Miller & Sabatino, 1978; Wang & Birch, 1984; Wixson, 1980).

Some of the potential advantages identified by various proponents of the model are as follows:

- LD students can remain in their regular classes, thus minimizing any disruption or discontinuity of their school programs (Haight, 1984; Gilhool & Ginn, 1982).
- Students with mild learning problems are not identified as 'exceptional' or singled out as different (Haight, 1984; Huefner, 1988; Newcomer, 1977; Gilhool & Ginn, 1982).

- LD students can benefit from the help, encouragement, and stimulation of their peers, while the latter can have the opportunity to appreciate and understand them (Haight, 1984; Huefner, 1988; Gilhool & Ginn, 1982).

- Closer interaction and better understanding between regular class teachers and special educators are likely to occur (Huefner, 1988).

- Regular teachers can also upgrade themselves through the ongoing support from the consultant teachers (Haight, 1984; Heufner, 1988); and the school staff as a whole can enjoy the advantage of having in-house consulting teachers over outside experts.[4]

- Savings of financial resources are possible, as greater numbers of students can be helped with existing resources (Graden, Casey & Christenson, 1985; Haight, 1984; Huefner, 1988).

Indeed, Huefner (1988) finds the consulting teacher model particularly suitable for improving service delivery at the secondary school level. With the implementation of the teacher consultant model, special educators can help content-area teachers modify curriculum and instructional methods to meet the individual needs of their LD students.

2.4 Types of Services

Consulting teachers have no formal teaching responsibilities. Rather, they are full-time consultants offering multiple ongoing, school-based services to the school staff. One of their major functions is delivery of inservice education and training to content area teachers on special education skills - such as task analysis, diagnostic assessment, behavioral management, curriculum adaptation, problem solving, systematic implementation of learning principles, measurement of student progress, and evaluation of individualized instruction programs (Egner & Lates, 1975; Huefner, 1988; Goodwin & Powell, 1981). Formal inservice education for teachers can be in the form of inservice workshops and coursework (Knight, Meyers, Paolucci-Whitcomb, Hasazi & Nevin, 1981; Fox, Egner, Paolucci, Perelman & McKenzie, 1973; Christie, McKenzie & Burdett, 1972).

Another vital role assumed by the consulting teachers is delivery of day-to-day consultant support for individual classroom teachers (McGlothlin, 1981). Through one-to-one consultation, consulting teachers provide information about the referred students, discuss educational problems, present ideas and techniques for use in the regular classroom, and assist teachers in developing individualized instruction programs (Christie, McKenzie & Burdett, 1972; Gilhool & Ginn, 1982; Reisberg and Wolf, 1986). Ongoing consultation also includes applications of the content of inservice education to the regular

classroom, demonstration of instructional techniques (model teaching), and provision of supervised trials, attention, reinforcement, and feedback to the consultees - the regular classroom teachers (Fox, Egner, Paolucci, Perelman & McKenzie, 1973; Egner & Lates, 1975; McGlothlin, 1981; Knight, Meyers, Paolucci-Whitcomb, Hasazi & Nevin, 1981; Goodwin & Powell, 1981).

Other duties expected from a consulting teacher include:

- performing curriculum-based assessments (Egner & Lates, 1975);
- classroom observation to diagnose referred students' problems, and to monitor their progress (Knight, Meyers, Paolucci-Whitcomb, Hasazi & Nevin, 1981; Gilhool & Ginn, 1982; Reisberg & Wolf, 1986; Huefner, 1988);
- developing referred students' instructional programs along with recommendations and necessary special instructional materials (Fox, Egner, Paolucci, Perelman & McKenzie, 1973; Gilhool & Ginn, 1982; Haight, 1984; Huefner, 1988; Egner & Lates, 1975);
- designing whole curriculum units and classroom intervention strategies for use by regular classroom teachers (Haight, 1984; Huefner, 1988);
- evaluating the prescribed strategies implemented by classroom teachers (Knight, Meyers, Paolucci-Whitcomb, Hasazi & Nevin, 1981); and

- providing liaison with parents for example, conferring with parents concerning their children's difficulties, backgrounds and home situations, and involving students' parents in developing instructional programs (Knight, Meyers, Paolucci-Whitcomb, Hasazi & Nevin, 1981; Gilhool & Ginn, 1982).

2.5 Conditions for the Success of the Model

An examination of the literature reveals that there are four important prerequisites for successful implementation of the consulting teacher model. They are:

1. commitment and cooperation of regular classroom teachers;
2. development of credibility and consultation skills on the part of consulting teachers;
3. provision of adequate time and organizational structure for the consultation tasks; and
4. strong administrative support.

1. Commitment and Cooperation of Regular Classroom Teachers

As indicated earlier, the actual implementors in this model are regular classroom teachers while special education teachers act to facilitate and support their efforts. Hence the effectiveness of this service delivery model relies heavily upon the positive attitudes of the regular school staff in terms of:

- their acceptance of mainstreaming of exceptional students;

- their commitment to implementing prescribed strategies; and
- their rapport with special education teachers.

Perhaps one of the first steps is to define the special-regular education relationship in order to ensure the regular teachers' commitment and cooperation (Newcomer, 1977). Another way to assure the receptiveness of regular classroom teachers is to have consulting teachers use the collaborative, rather than the expert, model of consultation. That is, regular and special education teachers should plan together and share responsibilities for instructional outcome (Huefner, 1988; West, 1985; Adamson, 1983). It is important for the teacher consultant to avoid appearing as an expert critiquing the regular teacher's performance. Consultation must be undertaken tactfully and must deal specifically with the strategies and techniques related to good teaching. Otherwise, "regular teachers will see the consulting teacher as a tutor, an intruder, or at the least as an outside consultant rather than an inside collaborator" (Huefner, 1988, p.408). Indeed, West and Idol (1987) found in their study that regular classroom teachers expressed a preference for the collaborative consultation model, and the least preferred model was the expert type. Weissenburger, Fine & Poggio (1982) also reconfirmed their earlier findings that "the teacher view of the consultant as being empathic, warm, and understanding played a large part in determining whether the teacher viewed consultation as a success."

2. Credibility and Consultation Skills

The effective consulting teacher model necessitates a high degree of credibility on the part of the consulting teachers. Davies and Davies (1988) discuss various means of establishing and maintaining credibility as a consultant teacher in order to ensure acceptance and respect from the classroom teachers. Among the various prerequisites for the establishment of credibility is their expertise as educators.

In light of the multiple consultation tasks expected from a consulting teacher, the required expertise implies a broad spectrum of competencies - for example, proficiency in specific academic skill areas; familiarity with the regular curriculum; ability to assess student academic performance with appropriate formal and informal diagnostic instruments; ability to demonstrate the tactics and strategies of good teaching; competency in adapting curriculum for LD students in the regular classroom; and familiarity with observational and interviewing techniques (Newcomer, 1977; Gilhool & Ginn, 1982; Huefner, 1988). Equally important are their interpersonal, communications and teaming skills, in particular collaborative problem-solving strategies.

Consequently, advocates of the model suggest the need for high-level training in collaborative consultation skills for prospective teacher consultants - that is, incorporating human relationship and communication skills components into the training programs (Weissenburger, Fine and Poggio, 1982;

Huefner, 1988; Idol-Maestas & Ritter, 1985). For instance, special educators should be trained to interact effectively with colleagues from other disciplines, and to deal with teachers' reluctance to collaborate in serving LD students[5] (Speece & Mandell, 1980; Friend, 1984).

3. Organizational Preparedness and Time Factor

Another important precondition is that the organizational structure should be prepared to adapt to the new roles played by special education teachers. The policy objective of the model must be clearly established, and roles and responsibilities of the consulting teachers must be explicitly defined before the full consulting services can be realized (Graden, Casey & Christenson, 1985; Huefner, 1988; Haight, 1984).

Time is another vital factor. As pointed out by Miller and Sabatino (1978), implementation of the teacher consultant model is a time-consuming process, especially in view of their multiple consultation responsibilities. Too heavy case loads may result in only marginal changes in student performance, which means a failure to tap the full potentials of the model (Haight, 1984). In the case of the Vermont school districts, each full-time consulting teacher provided inservice training to 15-20 teachers per year. Through such training, each consulting teacher served at least 40 students eligible for special service (Christie, McKenzie and Burdett, 1972). According to the National Task Force on Teacher Consultation, a full-time consulting teacher may

be able to handle a case load of up to 35 students (Haight, 1984; Idol, 1986).[6] Fox and his colleagues (1973), however, find it unreasonable to determine the number of pupils that can be assigned to a consulting teacher:

> Experienced consulting teachers can assume responsibility for more than 40 eligible children in regular classrooms under some conditions, but establishing this number as policy will undoubtedly lead to shoddy records, poor parent involvement, and harassed special educators. If a consultant teacher wishes to increase his performance, let him thoroughly train a number of teachers before taking on more children. The consulting teacher must demonstrate progress for the pupils served. (p.39.)

Of course, in addition there should also be built-in time for regular classroom teachers to consult with resource teachers.

4. Administrative support

Finally, the efficacy of the model is also contingent upon the kind of support provided by school administrators, particularly the principals (Laurie, Buchwach, Silverman, & Zigmond, 1978; Huefner, 1988; Christie, McKenzie & Burdett, 1972; Speece & Mandell, 1980; Van Doninck, 1983; Goodwin & Powell, 1981). As Idol-Maestas and Ritter (1985) aptly put it,

> ... consultation models are likely to be slow to develop if advocacy must rest upon the shoulders of individual special education teachers. Surely a more advanced and effective approach would be to begin with administrative support.... (p.128)

School principals must believe in the program and encourage their school staff to avail themselves of the consultant services (Gilhool & Ginn, 1982). Principals' active support and enthusiasm

are imperative for establishing and maintaining an atmosphere which facilitates interaction among teachers. Furthermore, it has been suggested that school principals, where possible, should also participate along with their regular class teachers in the inservice training offered by consulting teachers. As Goodwin and Powell (1981) write, "If teachers learn techniques that will call for changes in how they do their job, supervisors must also be trained so those changed can be supported and maintained." (p.15.)

Other administrative supports to teacher involvement include the redirection of existing resrouces to accommodate inservice training and program coordination. Some authors even suggest that school principals should insist on total staff participation and should make working with consulting teachers a condition under which new teachers are hired (Gilhool & Ginn, 1982).

2.6 Evaluation Studies on the Model

Efficacy research concerning the teacher consultant model has been undertaken since the early 1970s. The summaries of these reports will be presented chronologically.

Christie, McKenzie and Burdett (1972) reported a case study in Vermont in which a regular classroom teacher had worked with consulting teachers for four years and progressed through the training levels.

> During the four years of inservice training, this teacher has obtained reliable measures and effected improvements in the social and academic behaviors of a total of 48 children.... Her increasing special education skills have benefited all of the children in her classroom, and she has prompted and encouraged the majority of the teachers in her school to become involved with the consulting teacher as consultees, workshop participants or graduate students. (p.9)

Another early study was conducted by Egner and Lates (1975). According to the authors, through the Vermont Consulting Teacher Program, over 800 teachers successfully implemented individualized programs for over 1,088 exceptional students in their regular classrooms. Many of "Vermont's regular classroom teachers have [also] become convinced that they can effect behavioural change for exceptional children."

Hanley and Everitt (1977) conducted a longitudinal analysis in Burlington which showed consistent academic gains for children receiving consulting teacher service.

In Illinois, Miller and Sabatino (1978) compared the resource room model with the consulting teacher model, and found equivalent academic gains for (elementary-school) students served by both models. This suggests that regular teachers could become as effective in delivering instruction to students with mild learning difficulties within their classes as resource teachers are in resource room settings. It was also found that measures of teacher behaviour improvement were more frequently observed in the consulting teacher model than in the case of the resource room model. Some of these measures were a higher degree of

acceptance and encouragement, and increased communication with handicapped students. The authors did, however, warn that owing to the relatively short period of the study (6 months for academic measures and 3 months for observational measures), the results should only be viewed as tentative support for the model.

Knight, Meyers, Hasazi, Paolucci-Whitcomb, and Nevin (1981) undertook a four-year evaluation of consulting teacher services in Vermont. Three elementary schools with consulting teacher programs were compared with three other schools without consulting teacher services. The results indicate significantly greater student achievement gains in the service schools throughout the four years of the project than in the other three "non-service" schools.[7]

In the early 1980s in Minnesota, Graden, Casey and Bonstrom (1983) conducted a field study in three schools (two elementary and one junior high) which implemented the pre-referral intervention model. The system was based on the consultation model of service delivery. While some teachers welcomed assistance through consultation, others perceived consultation as a threat to their own competency. Moreover, there was evidence of resistance from the LD teachers themselves. They preferred direct service to consultation; it is especially true that for those "who justify their services primarily on serving numbers, a change in service delivery format may be very threatening."

Another consulting teacher program called Diagnostic-Prescription Teacher (DPT) program has been developed in the William Penn School District (mainly elementary schools) in Pennsylvania since 1972. According to Gilhool and Ginn (1982), specific results were difficult to quantify since there were no unaided students to serve as controls. It is clear, however, that with the ongoing school-based support from DPTs (consulting teachers), the regular classroom teachers attained increased capability in meeting the individual needs of their students.

Finally, the Wellington County Separate School Board in Ontario has adopted a similar program for over a decade.[8] As outlined in a Wellington Board document, the goal of the program is to meet the students' educational needs in their regular classrooms, and to integrate special education in each classroom's program. According to the consultant, the program has been successful in serving special education students in the mainstream classrooms.

Although the above-mentioned findings are generally favorable to the model, there is still a need for more solid research data. Empirical data on the following measures may shed more light on the efficacy of the model:

- number of pullout students successfully reintegrated into the mainstream;
- number of LD students successfully maintained in the regular classroom;
- number of referrals handled successfully by consulting services (Huefner, 1988);

- number of regular classroom teachers seeking consultation and working with reintegrated children; and
- reports of consultee satisfaction with the program.

2.7 Limitations of the Model

Huefner (1988) in his article, "The consulting teacher model: risks and opportunities", cautions against hasty implementation of the consulting teacher model. He contends that this service delivery approach should not be treated as a substitute for the resource room program.

> If the consulting teacher model is seen as a panacea for the supposed ineffectiveness of many resource rooms, services to special education students are likely to seriously deteriorate.... It is critical that the consulting teacher model not be seen as a be-all and end-all. In many schools it may not be necessary at all, and even where useful, consulting services often will not substitute for more intensive intervention in a pullout program.
>
> Some mildly to moderately handicapped students predictably will require different short-term or long-term instructional strategies and methods from those that can be successfully implemented in the regular room. Therefore, the consulting teacher model should not replace the resource room as a primary service delivery system but should be parallel or supplementary to it, and placement decisions should continue to be made on the basis of individual needs.... (p.407)

Furthermore, Huefner (1988) warns against the adoption of the model merely out of budgetary concern:

> While the possibilities for cost-savings are plausible, wholesale adoption of the model should be based not on faith and hope but rather on careful economic analysis of alternative possibilities.
>
> Furthermore, if a district is driven by desire for immediate short-term savings, it may achieve them only at the expense of efficient long-term cost-benefit

> ratios. That is, reducing the number of resource teachers and giving large case loads to a consulting teacher may save money in the short run, but if student performance does not improve as a result, the shift is inefficient. If consulting teachers are employed merely to stopgap special education budget cuts, the consulting teacher model would be reduced to a mere band-aid to slow the "bleeding" from program cutbacks. (p.409)

With this cautionary note, let us now turn to the second delivery model which attempts to incorporate both consultation functions and resource room services in a single delivery system.

Chapter 3

RESOURCE/CONSULTING TEACHER (R/CT) MODEL

3.1 Model Characteristics

Unlike the teacher consulting model, the resource/consulting teacher model (R/CT) offers both direct and indirect services to LD students. Direct services refer to those duties expected from a resource room teacher - mainly the provision of individualized instruction to a small group of LD students within a resource-room setting. Indirect services refer to more or less the same kinds of functions provided by the consulting teacher model discussed above. R/CTs are thus supposed to spend part of their professional day working as resource room teachers to LD students, and the remaining part of the day as consultants to regular classroom teachers. A major thrust for the provision of these dual services is to ensure carry-over between resource room instruction and regular classroom curricula.

3.2 Historical Background

In the late 1970s, a series of experimental studies called Special Emphasis Projects were conducted in the Pittsburgh City School District and seven other districts across the United States (Bean, 1979). The focus of these projects was the importance of both direct and indirect services for special education personnel. Since 1976 the Department of Special Education at the University of Illinois has developed a Master's level program for preparing teachers to become R/CTs (Idol-Maestas & Ritter, 1985; Idol-Maestas, 1981). Nonetheless, as in the case of the consulting teacher model, there are still few R/CT training programs, and the model has not yet been widely adopted (Idol-Maestas & Ritter, 1985). In Canada no published reports concerning the model can be located. Thus, little is known about the model in the Canadian context.

3.3 Philosophy Underlying the Model

Advocates of the R/CT model see the merits of both the resource room program and the consulting teacher approach in delivering special education services (Wiederholt, Hammill & Brown, 1983; Adamson, 1983; Wixson, 1980; Bean, 1979). They maintain that many LD students still need direct instruction in the resource room to remediate basic academic skills, acquire social/behavioural skills, and learn functional skills (Adamson,

1983). But, as supporters of the consulting teacher model, they also realize the shortcomings of the resource room programs in their school systems (Van Doninck, 1983).

> Resource programs operating only as a tutorial service without a concomitant change in the child's original failure situation, the regular classroom, appear to hold little success for mainstreamed students and their teachers.... If the two groups of educators cannot work cooperatively as a team with the handicapped child, it is not unreasonable to assume that this hesitancy toward direct help may limit the effectiveness of a resource room program... (Speece & Mandell, 1980, p.53.)

Indeed, Ito's study (1980) shows that the increased reading rates of LD students obtained in the resource rooms did not appear to be maintained after they were back in the regular classroom setting. It is hence suggested that resource teachers should also direct their attention to the needs of their students in the regular classrooms, and should "apply generalization procedures to help students transfer newly learned skills and behaviours to the regular class environment". The R/CT model is recommended as an approach to mitigate the inadequacies of resource room programs.

Furthermore, it is contended that in order to reinforce the new skills acquired by LD students in the resource room within the mainstream setting, regular teachers must also become involved in the remedial effort. It is thus desirable for the resource teachers to consult with the regular class teachers on the skills required to bring about and maintain the change in their classrooms (Wiederholt, Hammill & Brown, 1983).

In short, the resource room and the consulting teacher models are viewed as complementary parts of a continuum of special education services. Accordingly, the merits of both service delivery models can be incorporated to produce maximum benefits. For example:

- Students can gain from specific resource support while remaining integrated in the mainstream settings (Wiederholt, Hammill & Brown, 1983)

- Through direct instruction in the resource room, the R/CT will know the dynamics of a particular student's instructional needs and problems, and will become proficient in using a variety of educational techniques and programs (Wiederholt, Hammill & Brown, 1983).

- Through direct instruction R/CTs can develop opportunities for building rapport and demonstrating credibility with the classroom teachers. For instance, by focusing upon a core-group of LD students, R/CTs can demonstrate that with appropriate intervention and effective carry-over into the classroom programs, significant improvement could be achieved by the students (Bagley, 1976).

- On the other hand, by consulting extensively with teachers, a R/CT has an opportunity to help more students than by being a full-time resource room teacher (Wiederholt, Hammill & Brown, 1983). Also students other than special education students can benefit from the

consultative services as a result of improved instructional effectiveness with the entire class (Idol-Maestas, Lloyd & Lilly, 1981; Bagley, 1976).

- R/CTs can also serve as in-house informational resource to other school personnel, to parents, and to the students themselves (Wiederholt, Hammill & Brown, 1983).

- Finally, successful remediation of problems in the regular class allows R/CTs more time to offer direct service to students with more severe learning problems (Idol-Maestas, Lloyd & Lilly, 1981).

3.4 Types of Services

Direct services:

Direct, tutorial instruction in resource-type settings is an essential element of the model (Wiederholt, Hammill & Brown, 1983). But according to the R/CT advocates, resource room instruction should be reserved for those students with academic, study skill or behaviour problems that are severe enough to warrant such services (Bagley, 1976; Idol-Maestas, Lloyd and Lilly, 1981; Adamson, 1983). The curriculum components in the secondary-school resource room should thus concentrate on basic academic skills (reading, math, language arts), social and behavioural skills, and/or career awareness (Zigmond, 1978; Adamson, 1983).

Less severe LD students should be placed in regular classes on a full-time basis and be provided with problem-solving assistance and short-term instruction within the classrooms. Adamson (1983) includes the "direct tracking services", which are supportive services offered to the LD students in addition to direct instruction in the basic skills. In most cases, they are tutoring services related to the regular classroom curricula - for example, helping students complete assignments.

Aside from remedial instruction, R/CTs are expected to offer other direct services such as assessment of the referred students' educational needs; continuous monitoring to validate instructional procedures; preparation of individual instructional programs; and management of the overall resource program (Wiederholt, Hammill & Brown, 1983; Van Doninck, 1983).

Indirect Services - Consultation:

As far as consultation services are concerned, R/CTs are expected to perform similar types of functions to those provided by full-time consulting teachers. These include **one-to-one consultation** with content area teachers and the provision of formal instruction in the form of **inservice training** or **workshops** (Wiederholt, Hammill & Brown, 1983; Idol & West, 1987).

Other duties expected from R/CTs include classroom observation; reviewing the effectiveness of various prescribed intervention strategies; preparing materials appropriate to the

needs of the LD students; following up the progress of students who no longer attend the resource program; and liaison to parents (Laurie, Buchwach, Silverman, & Zigmond, 1978; Bagley, 1976; Wiederholt, Hammill & Brown, 1983; Zigmond, 1978; Speece & Mandell, 1980).

The intent of all these multiple services is (1) to ensure successful transfer of academic and/or social behaviour skills from the resource rooms to the mainstream setting; and (2) to reintegrate students for whom direct service has been successful back to the regular classroom full time (Idol-Maestas, Lloyd & Lilly, 1981; Idol & West, 1987). All in all, as Idol-Maestas, Lloyd and Lilly (1981) summarize it, "the R/CT ... serves as a multidisciplinary team member, a resource teacher, a manager of students, a consulting teacher, and a liaison to parents."

3.5 Conditions for the Success of the Model

The effectiveness of the R/CT programs relies heavily on how indirect services, namely consultation, can be accommodated with the resource room functions within a single service delivery program. It is found that in many ways, the preconditions necessary for the success of R/CT programs are similar to those of the consulting teacher model:

1. cooperation of regular classroom teachers;
2. development of consultation skills on the part of resource teachers;

3. provision of sufficient time and organizational structure to support the model; and

4. strong administrative support.

1. Cooperation of Regular Classroom Teachers:

As in the consulting teacher model, the effectiveness of the program depends on the quality of the relationship between resource teachers and regular classroom teachers. To ensure the cooperation of the latter, resource teachers should resort to a collaborative model of consultation (Idol & West, 1987; Laurie, Buchwach, Silverman, & Zigmond, 1978). Therefore, in addition to inservice training and demonstration instruction, resource teachers should emphasize the importance of mutual participation with their regular classroom counterparts (Idol-Maestas, Lloyd and Lilly, 1981). Indeed, some authors caution that R/CTs should wait until they are firmly established and accepted in the schools before conducting any formal inservice training. On the other hand, regular educators in a given school should also be trained to use the consulting services effectively (Huefner, 1988).

2. Consultation Skills and Training:

In view of their multifaceted roles, R/CTs are expected to be proficient in multiple areas. On the one hand, they should possess the basic types of competencies as resource room teachers - such as curriculum analysis, analytic teaching, organizing and managing the learning environment, behaviour management, and

materials modification (Wiederholt, Hammill & Brown, 1983). On the other hand, they are supposed to be proficient in such consultation skills as collaborative consultation, administration and organization, pupil counselling, inservice training, and public relations (Bean, 1979; West and Brown, 1987; Friend, 1984). In fact, McGlothlin (1981) found in his study that for many schools a major obstacle to the shift of resource room teaching to R/CT program was that most resource room teachers lacked training to function as consultants.

Huefner (1988) in his study urges a significant expansion in program requirements to include training in both resource room and consultative roles. He also stresses the importance of pre- and inservice training for R/CTs. "Where needed, it should be provided before and not just after a teacher assumes the role of consulting teacher"; and "if it is to be effective, inservice training should provide supervised hands-on training with regular follow-up by the trainers and with implementation of systematic evaluation measures."

3. Time Factor and Organizational Structure:

Another crucial factor for the effectiveness of the R/CT model is the availability of sufficient time for the teachers involved (Idol and West, 1987). According to Idol-Maestas (1983), R/CTs should spend about 20 to 40 percent of their school day in consultation-related activities. At present, however, most resource teachers spend only 5 to 7 percent of their school day

in consultation as a result of the time constraint placed upon their daily schedules (Reisberg & Wolf, 1986). Even the R/CT graduates, reported in Idol-Maestas and Ritter's study (1985), had their teaching assignments defined in such a way that they had little or no time allowed for consultation. This has partly to do with the general failure of the majority of schools to treat teacher consultant services as part of a continuum of special education services (Idol-Maestas & Ritter, 1985; West & Brown, 1987).

In order to ensure sufficient time to accommodate both consultant and resource room services without either one being a burden to the other, three organizational factors need to be considered.

(1) Inclusion of consultation as a primary duty in job descriptions should be promoted and negotiated in order to ensure sufficient time for consultation, and to provide for a better balance between the instructional and consulting roles (Reisberg & Wolf, 1986; Idol & West, 1987).

(2) Consultation time must be built into the schedules of both regular and special educators. For example, R/CTs may be released for one or more periods each day or may reserve one day each week for consulting (Reisberg & Wolf, 1986). In the model developed by Bagley (1976), the R/CTs served 17 children per day usually in small groups for 45 minute sessions during the morning, and in the afternoon they consulted with regular teachers. Adamson (1983) in his report offers a more

specific guideline. The resource teachers in the program were given a five-period teaching day and an additional free period for delivering tracking services (support services).[1] It is stressed that if possible all these activities should take place during the school time, since "before- and after-school appointments often created burdens and resentments, or were simply impossible to arrange." (Adamson, 1983).

The schedules of <u>both</u> the resource teachers and the classroom teachers should also be adjusted to permit adequate time for collaborative consultation (Idol and West, 1987). Again as Adamson (1983) suggests, resource teachers' consulting periods should be staggered in such a way that at least one of them is available to virtually the entire school staff during their preparation periods. Of course, this also depends on whether the regular classroom teachers are willing to use their planning periods for meetings. Quade (1985) examined the effects of blocking a period of time in the schedules of R/CT for consultation with classroom teachers. The results suggest that establishing a block of time each day for consulting did promote continued use of the consulting service throughout the school year both in terms of time and number of consultees (Idol & West, 1987).

(3) Concomitantly, <u>case load assignments</u> and resource room schedules should be altered to allocate time for consultation (Idol & West, 1987). Since consultation with regular classroom teachers is a time-consuming process, the case load to be carried

by resource teachers must be diminished accordingly in order to ensure that they can manage both roles simultaneously and effectively (Huefner, 1988). According to Wixson's survey (1980), "a maximum of approximately 15 pupils could be effectively served by the resource room at any one time.... A limit of five pupils at any one time was established for the indirect service component." Lilly (1977) stated that a teacher could deliver both direct and indirect services to a maximum of 15 students.

4. Administrative support:

As far as administrative support is concerned, the findings are similar to those of the consulting teacher model.

3.6 Evaluation Studies on the Model

There is a dearth of efficacy studies on the R/CT model. Below are a few reports that have been gleaned from the available literature.

Bagley and Larsen (1976) in their one-year study found a positive effect of R/CT programs on the academic progress of students. Less labelling of students was also noticed. It was further reported that students receiving R/CT services were generally perceived more positively by their classroom teachers.[2] Furthermore, some teachers were more open about their inability

to be instructionally effective with a certain student. There were also indications of increased sharing of ideas and materials between regular and special education teachers.

The Pittsburgh City School District and seven other districts across the United States received funds to conduct a Special Emphasis Project on the various roles of specialists, who were expected to perform both direct and indirect services. It was reported that the regular teachers in the experiment highly valued the consultative roles of special educators. These included inservice, development of materials, and conferring. "It appears teachers want and appreciate the support that will enable them to function more effectively within their own classrooms." (Bean, 1979, p.411).

Adamson (1983) reported on a resource program in the Granite School District that combined resource-room instruction with extensive supportive services ("tracking services") offered to both problem students and their regular classroom teacher(s). According to the author, the program proved to be an effective and practical design for the school district's secondary resource rooms.

> While not without its problems, the tracking approach has allowed resource teachers to provide a wider range of services, test new ideas as they are described in the literature, and help students generalize skills and behaviours into real school environments. (p.76.)

Less positive findings were, however, reported in Idol-Maestas and Ritter's (1985) study. They conducted a survey of a group (27) of R/CT graduates from the University of Illinois who

had become special educators. Fifty-nine percent of these graduates reported consultation as one of their responsibilities in their job descriptions, but with just over half of them consulting more than 5% of the time. Most (80%) encountered resistance to consultation, though they also found a positive attitude change toward consultation on the part of principals, class teachers, and other special educators.

Daniels (1984) describes a similar model developed at a secondary school in England. Remedial specialists provided both resource-room instruction to problem students and support services to their regular classroom teachers. Unfortunately, no mention has been made as to the effectiveness of the program.

3.7 Limitations of the Model

Several authors are skeptical about the multifaceted roles expected from a R/CT. They find it too demanding for a single teacher to perform a myriad of tasks for different target groups - students, teachers, parents, and administrators (Huefner, 1988; Gilhool and Ginn, 1982; Huefner, 1988). As a result of her survey, Friend (1984) writes:

> Resource teachers appear to be expected to be "super teachers," that is, in addition to the primary responsibility of providing direct instruction to handicapped students, they are expected to confer with regular education teachers, observe students in mainstream settings, conduct inservice training, and so on, through a seemingly endless list of job duties. Given current time constraints, it is questionable,

> however, whether this tremendous range of tasks can be successfully managed by a single professional. (p.249.)

Hence, Gilhool & Ginn (1982) and Huefner (1988) suggest the use of differentiated staffing - a full-time master consulting teacher and a full-time resource-room teacher - within the same school. The dual positions can complement and support the functions of one another, thus expanding the options available to special education students. The Child Service Demonstration Center project implemented in the City of Pittsburgh was indeed a program which delivered both direct and indirect services to secondary-school LD students by separate special education personnel (Zigmond, 1978; Laurie, Buchwach, Silverman, & Zigmond, 1978). According to their preliminary findings from a small-scale implementation in 1975-76, "regular classroom teachers, school administrators, parents and students enrolled in the program were highly complimentary." The author also found academic gains among the LD students.[3] A more recent study by Zigmond and Sansone (1986) further indicates that the Pittsburgh model has been replicated successfully in various school districts across the United States.

Nevertheless, Wiederholt, Hammill, & Brown (1983) argue that "because of the nature of most consulting activities, it is difficult to determine precisely where assessment and teaching stop and consultation begins;" and thus "the roles cannot and should not be split arbitrarily among ... different persons."

Chapter 4

PROBLEM SOLVING TEAM (PST) MODEL

4.1 Model Characteristics

Problem Solving Teams (PSTs) are on-going, school-based support teams specifically designed to help and support regular class teachers in providing alternative interventions to their LD students. The term PST is used generically to encompass a variety of building-level teams, which may vary in composition and specific aims (Schram & Semmel, 1984).

The Teacher Assistance Team (TAT) is one of the better known models. Unlike most PSTs, the core participants of TATs are regular classroom teachers, with special educators playing the supportive role either as regular team members or as consultants to the teams when needed (Chalfant, Pysh & Moultrie, 1979; O'Reilly & Squires, 1985; Hayek, 1987; Mainzer, 1982; Grosenick and Huntze, 1982). TATs are thus a problem-solving system built by and for regular classroom teachers.

The "pre-referral intervention model" is another well-known model with the specific goal "to implement systematically intervention strategies in the regular classroom and to evaluate

the effectiveness of these strategies before a student is formally referred for consideration for special education placement." (Graden, Casey & Christenson, 1985). Unlike TAT, special education teachers are part of the core membership on the pre-referral intervention teams, providing regular classroom teachers with constant consultation services (Graden, Casey & Christenson, 1985; Graden, Casey & Bonstrom, 1983). But the regular education teachers also play active roles as resources to their fellow classroom teachers. The final decision regarding selection of interventions lies with the regular classroom teachers, who have "ownership" of the selected interventions (Graden, Casey & Christenson, 1985).

The Local School Teams developed at the Toronto Board of Education are another form of PSTs. One of the major functions is to help classroom teachers cope with the problems of their referred students before attempting any formal special education placement. "... most of the team's efforts would be directed at providing staff with individual strategies to assist them in their efforts to modify the student's program in the classroom." (Toronto Board of Education, 1986). The members of a Local School Team may include the school principal or vice-principal, a representative from the guidance department, a special education teacher, and a school psycho-educational consultant, while classroom teachers who are involved with specific students participate when necessary.

Other PSTs include the Student Study Team (Butler, 1984), the Child Study Team (Schram & Semmel, 1984), the School Consultation Committee (McGlothlin, 1981), the School-based Prescription Team (Silverman, 1988), the School Team (Hardy, Stennett & Posno, 1980), and Student Needs Committee (Toronto Board of Education). To a varying degree, these PSTs are composed of special education teachers, regular class teachers, the school principals, and/or other auxillary members such as parents.

Despite the specific differences, all the above mentioned school-based teams have some important commonalities. First, they are local school assistance teams, which meet on a regular basis. Second, they are organized explicitly to assist regular classroom teachers. Through ongoing peer support and a cooperative problem solving approach, the teams help content area teachers identify and establish interventions for students with learning difficulties (O'Reilly & Squires, 1985; Mainzer, 1982; Schram & Semmel, 1984; Hayek, 1987; Chalfant & Pysh, 1984). Third, the teams also serve to insure proper placement of students in school programs by providing intervention at the classroom level prior to any special education referral (O'Reilly & Squires, 1985; Schram & Semmel, 1984; Grossing & Huntze, 1982).

4.2 Historical Background

The concept of school-based problem-solving teams is not new. "For at least fifty years, schools have used child guidance clinics as a model for within school clinical assessment and intervention with difficult to teach pupils." But in recent years, attention to such school processes has shifted from interest in diagnosing problem students to interest in methods of coping with and accommodating individual differences (Schram & Semmel, 1984).

Since the late 1970s, various forms of PSTs have emerged - such as the Child Study Teams, the Student Study Teams, the School-based Prescription Teams, the Local School Teams, the Teacher Assistance Teams (TATs), and the pre-referral intervention teams mentioned earlier. The last two forms of problem-solving teams are among the more popular ones. TATs were developed in the late 1970s in several states - Arizona, Illinois, and Nebraska (Chalfant, Pysh & Moultrie, 1979). By the mid-1980s, the model was operational in ten states and in four provinces of Canada (Chalfant & Pysh, 1984; Mainzer, 1982). The pre-referral intervention system was also developed and implemented around the same time through the collaborative effort of the Minnesota Institute for Research on Learning Disabilities and a large suburban school district (Graden, Casey & Christenson, 1985). By the mid 1980s, a score of states have established, to varying degrees, building-level,

pre-referral, problem-solving teams to support classroom teachers (Hayek, 1987).

According to Butt's report (1986) in Cheshire, England, several schools planned in-house conferences on special needs, and one school formed its own committee which met regularly to discuss its students needs.

Locally, since 1982 all secondary schools in Toronto have set up their Local School Teams. Similar endeavors have been undertaken at the Wellington Separate School Board, which has had School-based Prescription Teams for over a decade.[1] In London, Ontario, a group of special services administrators and consulting psychology staff also established their own School Team system (Hardy, Stennett & Posno, 1980).

4.3 Philosophy Underlying the Model

Two major premises behind these PSTs are:

1. all teachers share responsibility for students with exceptional educational needs (Hardy, Stennett & Posno, 1980); and
2. regular classroom teachers should make every effort to resolve problems in their classes before referring any students to special education (Chalfant & Pysh, 1984).

According to PST advocates, school-based problem-solving teams are necessary "for mobilizing regular education resources in response to problem students who perhaps would be referred immediately for special education."

There are other practical concerns which give rise to these school-based teams. A major impetus is the sharp rise of referrals and placement in special education (Schram & Semmel, 1984; Ponti, Zins & Graden, 1988). It has become financially infeasible to provide direct special education services to all students who need individualized help. As a result, many special needs students, who are not eligible for special education services, may remain in their regular classrooms with little or no intervention attempted. According to PST advocates, a solution to this is the establishment of a school-based, teacher-assistance, problem-solving team, where regular classroom teachers and/or special education teachers can work together and develop the skills and knowledge to cope with their LD students in the mainstream classrooms (Chalfant & Pysh, 1984).

Some of the advantages of PSTs claimed by the proponents are:

- Prompt and accessible support for teachers:
  PSTs can provide immediate and relevant peer support to content area teachers who need assistance to individualize instruction for their problem students (Chalfant, Pysh & Moultrie, 1979; Lieberman, 1984; Mainzer, 1982; Ponti, Zins & Graden, 1988).

- Heightening staff morale and skills:
  Being a building-level team involving most of the school staff, PSTs have the effect of creating a more positive climate among regular classroom teachers

and administrators with respect to working with LD students (Chalfant, Pysh & Moultrie, 1979; Chalfant & Pysh, 1984; Mainzer, 1982). Also, through the team process, content area teachers can develop additional knowledge of instructional alternatives, learn new curriculum modifications, and heighten their sensitivity to the special needs of their LD students (Hayek, 1987; Schram & Semmel, 1984).

- Cost effectiveness and efficient use of school site resources:

  The model is supposed to be a cost-effective operation. It has been designed to minimize time and paperwork, and to encourage sharing of teachers' expertise and resources at the building level, so that the need for hiring additional staff can be minimized (Chalfant & Pysh, 1984; Mainzer, 1982; O'Reilly, Squires, Berg & Saylor, 1985; Schram & Semmel, 1984).

- Provding appropriate referrals for special education services:

  Finally, although PSTs are not pre-referral screening teams, they have the effect of screening out inappropriate referrals for special education (Chalfant, Pysh & Moultrie, 1979; Chalfant & Pysh, 1984; O'Reilly & Squires, 1985; Hayek, 1987). This ensures proper placement of students in the school programs. It also implies sizable financial savings and more effective use

of special education services. Greater numbers of LD students could be served in their regular classrooms with the existing staff and resources, while the special education personnel could focus on the more severely handicapped students (Chalfant, Pysh & Moultrie, 1979; Chalfant & Pysh, 1984; Hayek, 1987; Pinto, Zins & Graden, 1988).

4.4 Types of Services

A PST's major role is to assist regular classroom teachers in providing alternative interventions to their students with mild learning problems (Chalfant & Pysh, 1984; Pinto, Zins & Graden, 1988). The consultative problem-solving process includes three phases of support - problem identification and analysis, interventional planning and development, and evaluation.

1. <u>To delineate and clarify problems:</u>

   One of the main functions of PSTs is to help teachers conceptualize and understand the nature of the individual student's problems (Chalfant, Pysh & Moultrie, 1979; Grossing & Huntze, 1982). For instance, the team will elicit information about the teacher's concerns, ask clarifying questions, prioritize problems, and review information about the student - such as test results, previous classroom performance, and previously

attempted interventions (Schram & Semmel, 1984; Mainzer, 1982).

2. To develop a plan of intervention:

Team members will then brainstorm intervention strategies, rank the suitability of proposed solutions, select a course of immediate and long term actions, and allocate responsibilities (Schram & Semmel, 1984; Chalfant & Pysh, 1984). For instance, the plan "could include the use of an aide, volunteer, or a peer tutor; the use of different instructional materials; preferential seating; modification of classroom materials or selection of alternative materials; ..." (Mainzer, 1982, p.6).

3. To monitor the effectiveness of the intervention:

After a teacher has implemented the team's recommendations in the classroom for a specified period of time (around 4 to 6 weeks), the PST meets again to discuss results, to evaluate the planned intervention, and to make necessary adjustments to the original plan if needed (Mainzer, 1982; Hayek, 1987; Butler, 1984; O'Reilly & Squires, 1985; Schram & Semmel, 1984).

4.5 Conditions for the Success of the Model

Several factors have to be taken into consideration in order to facilitate successful implementation of the PST model.

Clearly Defined Goals and Roles:

Right from the outset, the roles of the various personnel involved must be clearly defined, and the entire school staff informed that the rationale of PSTs is teacher assistance, and that they should not be treated as multidisciplinary assessment or placement committees (Butler, 1984; Hayek, 1987). According to Schram and Semmel's survey (1984), "unsuccessful teams tended to function similarly to teams associated with special education assessment.... seldom made a meeting's purpose explicit... never defined members' role clearly... weren't characterized by equal participation in decision-making, especially by regular classroom teachers..."

Indeed, Ponti, Zins and Graden (1988) find it important to keep the entire staff involved and informed even during the preparatory stage "... so that they have an opportunity to express any concerns about the organizational changes being contemplated, and about the potential consequences these changes might have on their current teaching and classroom management practices - in an attempt to obtain the teachers' support and involvement." It is also important for the participants to understand the rationale and important components of the program and develop a sense of ownership. Ponti et al. also suggest formalizing the process through inclusion in the school's written policies and procedures.

Time Factor:

In order to tap the full potential of PSTs, it is advisable that the teams hold regular meetings, preferably on a weekly or biweekly basis (Butler, 1984; Mainzer, 1982; Hardy, Stennett & Posno, 1980). According to the case study by Ponti and his colleagues (1988), the primary concern of most teachers was the amount of time involved in attending pre-referral meetings and in interventions within their classrooms. Butler (1984), Chalfant and Pysh (1984) suggest that each meeting should last no longer than an hour. It is also important to consider the time necessary for team members to prepare for the meetings (Butler, 1984). According to Chalfant & Pysh (1984), team members should not be expected to spend more than 30 minutes each week for preparation. Hayek (1987) found in his study that too much paperwork, lack of planning time, and excessive workloads limited teachers' abilities to address the needs of their LD students. "Time loss resulting from TAT utilization impacts not only the carrying out of duties required, but also the actual implementation of TAT recommendations and completion of other normal instructional duties. (p.6.)"

Effective Team Structure:

To be effective the team process should be efficient and not burdensome to classroom teachers (Hayek, 1987). Schram and Semmel (1984) suggest that all PSTs should maintain "clear, stable, and efficient meeting formats" and should "concentrate effort on achieving consensual plans of action". However, it

is also important to keep the organizational details and meeting structure relatively flexible to suit each school's specific needs and characteristics (Ponti, Zins & Graden, 1988). As Schram and Semmel (1984) put it, "Do not mandate any particular model which insists that teams fully adopt specific formats, membership, vocabularies, and preconceived limitations on organization or functioning.... schools should be permitted to experiment with and model team goals and objectives to encourage quality and effectiveness rather than mere compliance."

Membership:

There are no stated rules as to who should or should not serve on a PST. This depends on the local school situation and the kind of team model adopted. But according to some PST advocates, the most critical participant is the referring teacher. The latter is the key person who will implement the recommendations of the team. Indeed, in the Teacher Assistance Team (TAT) model, three other regular classroom teachers are elected by the staff as the core team members. Whether other personnel, such as special education teachers, school principals, or parents, are eligible for membership on a TAT should, according to Chalfant, Pysh & Moultrie (1979), be determined by the regular teachers themselves.

With regard to special educators, concern has been raised about their role on the teams. There is the fear that the specialists may be assigned the role of 'experts', dominating the meetings, while regular classroom teachers get little chance to

share in the discussion and decision making (Chalfant, Pysh & Moultrie, 1979). Schram and Semmel's study indeed demonstrates this problem. (See p.60 for details.) In order to avoid such situations, some teams, such as TATs, only include regular class teachers as the core members, and invite special educators to participate when they need additional suggestions or follow-up diagnostic assessment. Many PSTs do, however, include special educators as regular members on the teams. In these cases, regular classroom teachers should be cautioned, at least initially, not to misconstrue the teams' goal as being direct referral to special education. Team leaders should clarify right from the outset the team objectives and the members' roles. Efforts should also be made to ensure equal participation in decision-making by the regular classroom teachers (Hayek, 1987; Schram & Semmel, 1984).

The inclusion of the school principal on the team is also a sensitive issue. As Chalfant, Pysh and Moultrie (1979) point out, "It may be difficult for teachers to perform freely as peers on the team when the principal also has the responsibility for evaluating and judging the teachers' performance during the year: will teachers refer their problems to the team? speak openly? admit failure with children? feel threatened?" If there is discomfort among the teachers, the team's functioning will be impaired (Butler, 1984).

According to Butler (1984) and Hayek (1987), effort should also be made to involve parents in the team. Not only are they

seen as a valuable source of information about their children's interest, aptitudes and ability, but they are also an essential part of the team process. For instance, parents should be encouraged to: "(a) better understand the instructional needs of their children, (b) actively participate in the formulation of educational alternatives, (c) carry out essential follow-up activities in the home, and (d) develop an understanding of the reasons for possible referral to special education ... after exhausting other alternatives." (Hayek, 1987). Butler's study (1984) demonstrates that the parents did enjoy the involvement in discussing their children's problems, and their participation on the teams did boost positive school-community relations.

With regard to the size of the teams, Mainzer (1982) suggests that the number of members should be kept to a minimum with probably a maximum of five. The idea is to facilitate the team's collaborative problem-solving process (Mainzer, 1982). Also, with smaller group size, each core team member is more likely to commit him/herself to and participate equally on the team (Butler, 1984). It is, however, important to clearly define early on specific roles and functions that must be performed by each member (Butler, 1984; Ponti, Zins & Graden, 1988).

Staff training:

It is essential to offer staff training regarding the nature and functioning of PSTs for the team members. According to Hayek (1987), lack of training would likely lead to ineffective team operation, poor utilization of the team resources, and confusion

about the purposes and operation of the teams. Some of the training components may include familiarization with the team model adopted, skill practice in communications, collaborative problem-solving, group decision-making, and formative evaluation methods (Hayek, 1987; Butler, 1984; Chalfant & Pysh, 1984; Schram & Semmel, 1984). Also training in consultation and teaming strategies for special education staff is necessary (Ponti, Zins & Graden, 1988).

Administrative support:

The cooperation and continuous support of school principals are also crucial for the success of PSTs (Graden, Casey & Bonstrom, 1983; Butler, 1984). For instance, school principals can offer concrete administrative support, such as the provision of inservice training, organizational structure, release time, and clerical assistance (Hayek, 1987; O'Reilly & Squires, 1985). As mentioned earlier, on some PSTs school principals even participate as team leaders. Their involvement can facilitate team process especially when administrative decisions - such as the need for changing teachers or classrooms - are required (Schram & Semmel, 1984; Hayek, 1987). It should, however, be cautioned that their presence at the meetings may also cause teachers to be less open. But, according to Hayek (1987), their leadership style can make a difference. If they can act as instructional leaders, respect for their contributions to the meetings may facilitate open communication and team operation. In any event, as Schram and Semmel (1984) write,

Principals who are directive, creative in allocating site resources, demonstrative in their enthusiasm for the problem solving team process, and who view themselves as instructional, as well as administrative, leaders will establish and operate successful site teams.

4.6 Evaluation Studies on the Model

A review of the literature indicates that the most significant outcome of PSTs is the reduction of referrals to special education.

Schram, Semmel and their colleagues (1984) conducted a statewide survey on the effectiveness of PSTs in California.[2] It was reported that PSTs were successful in many local school districts as attested by the reduction in rates of special education referral, and the increasing acceptance and number of PSTs. Nevertheless, not a single school site could come up with "objective, formative data supporting the proposition that interventions recommended by Teams resulted in positive, educational outcomes for students."

Chalfant, Pysh and Moultrie (1979) undertook a major study on Teacher Assistance Teams (TATs). During a two-year period, Chalfant and his colleagues trained 25 TATs in four States. The results show that 67% of cases for which teachers requested assistance were helped by TATs; another 27% were referred for special education. For example, in Illinois, of the 203 children referred to TAT, the team managed to resolve the

problems of 129 children, while the remaining 74 children were referred to special education services for more intensive help (Chalfant, Pysh & Moultrie, 1979). High staff morale was also demonstrated at project sites.

Hayek (1987), however, found in his study that the use of TATs had met with both positive and negative responses. Earlier on in Georgia, where TATs were implemented statewide, Hayek investigated administrator and teacher attitudes toward the teams. He found that a majority of the teachers surveyed (67% of the 1,251 teachers) believed the TAT process had been helpful to students and that they did have the time to single out students to attempt alternatives. But there were some teachers who found the time and paperwork involved in the process a deterrent to the referral of students to the TAT (Hayek, 1987).

In San Diago, Butler (1984) conducted a survey in 12 elementary schools where Student Study Teams were implemented. In schools where the Student Study Teams were in operation, there was about a 50% reduction in referrals to special education. This implies that many more students were able to remain in their regular classrooms and be assisted with the support of the Student Study Teams. The regular classroom teachers in the study were reported to be satisfied with the assistance they received from the teams. The Student Study Team also served an important inservice training function because teachers transferred what they had learned about working with one student to working with other students in their classes. A few parents also actively

participated in the Student Study Team meetings, and many expressed appreciation for the support their children received from the teams.

Graden, Casey and Bonstrom (1983) examined three schools (two elementary and a junior high school) in Minnesota where a pre-referral intervention model was utilized. Results of the field study were mixed. The program proved to be successful for one school, as indicated by a reduction in special education placements and an increase for consultation. But the other two schools exhibited little change in "referral, testing, and placement rates and numbers." The teachers at these two schools were more likely to agree that LD students needed instruction in a special class than they were to agree that the students could be taught in the regular class. According to the investigators, one of the reasons might lie in the absence of internal support at the two schools. It was reported that the "successful" school had strong administrative and internal support for the model, while there was no internal impetus for change in the other two cases.

McGlothlin (1981) reported on the School Consultation Committee, which was composed of special education teachers, regular education teachers, the school principal, and other ancillary personnel. The committee met on a regular basis to assist regular class teachers in identifying problems and in designing, implementing, and evaluating appropriate interventions for mitigating the problems of referred students. Preliminary

informal reports indicate that the program was effective in supporting behaviourally disordered pupils in the mainstream settings. In schools where this approach was implemented, almost all of the teachers sought help from the Committee during its initial operating year, and an increased number of teachers expressed a willingness to work with exceptional students. Also, teachers reported greater ability to meet individual needs more efficiently. Indeed, in most schools, the number of students referred for psychological testing was reduced by as much as 50 percent.

More recently, Ponti, Zins and Graden (1988) in Ohio conducted a long-term case study in an elementary school, comparing the effectiveness of a two-year prereferral intervention system to a 3-year conventional service delivery program[3]. Using a quasi-experimental pre/post-intervention design and multiple measures of outcome, Ponti and her colleagues observed several significant changes following the adoption of the prereferral programs.

1. The range of consultation services had broadened.
2. Psychoeducational assessments had been reduced by over 40% from pre- to post-program implementation.
3. The number of consultative cases regarding individual students increased dramatically - that is, a large increase in referrals for consultative assistance.

Furthermore, according to the teachers' self-report, a large majority (over 90%) participated in the program and implemented strategies developed during consultation. The teachers also noted that they received additional support and more immediate

assistance in dealing with classroom problems than in the past, and perceived their problem-solving skills to be improved. "In addition, many teachers demonstrated changes in their conceptions of children's problems over the course of the year. (p.97)"

Unfortunately, there is a lack of formal evaluation or published documentation concerning the effectiveness of the Local School Teams in Toronto and the School Based Prescriptive Team at the Wellington County Separate School Board. However, according to the special education consultants from the respective school boards, these school teams have been generally successful in helping their problem students in the regular classrooms; but the degree of use and sophistication of these PSTs varies from one school to another. Formal efficacy studies are necessary to assess more closely the effectivenss and implications of these local school teams on both the students and the teachers involved.

4.7 Limitations of the Model

According to Schram and Semmel's (1984) literature review, one major problem with most PSTs is that generally regular classroom teachers fail to play an active role on the teams. "The role and contribution of regular classroom teachers was peripheral despite the fact that, in many cases, s/he was to bear major responsibility for the student's program." (Schram & Semmel, 1984). Several earlier studies were cited in their literature review to show the low participation of regular

classroom teachers on the teams and their low satisfaction with team decision-making. In some instances, the only regular teachers who served on PSTs were the referring teachers. This can be partly attributed to the time constraint that regular education teachers are always facing. Indeed, as mentioned earlier, Hayek (1987) reported teachers' complaints about the time and paperwork involved in the process. Aside from the time problem, Trailor (1980) also found in his study that even for those teachers who were on the team, they were not accorded equal status by other team members - although they had gone through special inservice training designed to enhance their assertiveness in the team process. In most cases, team membership has been dominated by auxiliary and other resource personnel - resource specialists, psychologists, or principals.

The Teacher Assistance Team (TAT) model developed by Chalfant, Pysh, and Moultrie (1979) is indeed an attempt to address some of the problems. Unlike other PSTs, TATs operate completely within the regular education program as a resource and support system. The TAT is thus a teacher-centered instructional alternative support system with the special education teachers providing necessary support as needed (Hayek, 1987). With teachers as the main participants, TAT "serves as a setting in which teachers feel free from intimidation and can speak with professional candor." Perhaps, other PSTs should also emphasize more explicitly the important role of regular classroom teachers in the team process.

Finally, it should be stressed that the PST itself is not a panacea for the LD problem. As Mainzer (1982) cautions, "[the school-based assistance team] should not be used as a means of delaying the identification of handicapped students or in denying handicapped students special education services." Instead, PSTs should be adopted as a supportive adjunct to other special education services.

Chapter 5

TEAM TEACHING MODEL

5.1 Model Characteristics

Team teaching is the last service delivery option examined in this report. The idea of team teaching is to have two or more teachers teaming up to instruct and assist a group of students within the classroom setting. Various forms of team teaching have been experimented with to serve students with learning difficulties. In Phinn's report (1983), a regular classroom teacher team taught with another regular teacher in a combined class in Doncaster, England. In other cases, a special educator teams with another special educator and both work in a large resource room (Caplan, 1975; Garvar & Papania, 1982). The more popular form of team teaching, however, is the one wherein a special educator works with a regular classroom teacher in a mainstream classroom on a regular basis (Armbruster & Howe, 1985; Sargent, 1981; Bean & Eichelberger, 1985; Wang & Birch, 1984; Carlson, Ellison, & Dietrich, 1984; Reynolds & Volkmar, 1984; Ferguson & Adams, 1982; Sheppard, 1987).

In this study, we concern ourselves with only the last form of team teaching - regular/special educators team. Even so, there

are variations in the degree of implementation. Some authors treat this mode of service delivery as an alternative to the withdrawal programs (Wang & Birch, 1984; Carlson, Ellison, & Dietrich, 1984; Reynolds & Volkmar, 1984; Armbruster & Howe, 1985), while others recommend it as an option in the continuum of special education services (Ferguson & Adams, 1982; Sheppard, 1987). In any event, the ultimate goal of this in-class teaming approach is to assist regular classroom teachers "to accommodate diverse student ability levels in their classes and to support students who have learning problems. (p.86)" (Armbruster & Howe, 1985).

5.2 Historical Background

Team-teaching itself is not a new concept. But the application of team-teaching to LD students is a relatively recent endeavor (Garvar & Papania, 1982). By the late 1970s and the early 1980s, a number of team-teaching experiments had been conducted in several schools in the States. For example, team teaching was introduced into a number of secondary schools in Iowa in the early 1980s and has grown in popularity (Ferguson & Adams, 1982). The Mainstreamed Special Educator Model (MSEM) which has been frequently found in junior high or middle schools in the States is basically a program "in which a special education teacher works in a mainstream classroom on a regular basis to promote appropriate education in the least restrictive environment." (Reynolds & Volkmar, 1984). The

Adaptive Learning Environments Model (ALEM), which was developed at the University of Pittsburgh's Learning Research and Development Center, also employs team teaching as its instructional interface (Wang & Birch, 1984). Despite the various experiments, however, team teaching is still not widely practiced. In fact, there is relatively little American or Canadian literature on the use of team-teaching as a service delivery alternative (Reynolds & Volkmar, 1984).

There has, however, been increasing interest in team teaching and in-class support services in Britain (Hart, 1986; Lavers, Pickup & Thomson, 1986; Hegarty, 1985). Indeed, team teaching has become an integral part of their "whole school" approach, and is quite a common practice in many British secondary schools (Thomas & Jackson, 1986; Thomas, 1986).

5.3 Underlying Philosophy of the Model

As mentioned earlier, some authors treat team teaching as an adjunct service to resource room programs, while others regard it as the alternative model for servicing LD students. As an adjunct service, team teaching is a means for facilitating the LD student's transition from the resource room to the regular classroom and vice versa. As an alternative model, it is a way of merging special education with regular education (Wang & Birch, 1984; Reynolds & Volkmar, 1984; Sheppard, 1987). In

either case, the rationale for team teaching is mainstreaming for handicapped students.

There are four potential advantages of providing both team teaching and resource room services:

1. Within the regular classroom, resource teachers are in a unique position to appreciate the difficulties of their students that no other situation may be able to provide (Ferguson & Adams, 1982). "They can experience from the child's point of view the kinds of difficulties that arise, provide immediate support for individual children to help overcome them, and join with teachers in the longer term task of making the curriculum more appropriate for all needs." (Hart, 1986).

2. Through in-class teaming effort, the resource room teacher can become familiar with regular classroom requirements, and consequently can teach effective study skills and appropriate classroom survival strategies in the resource room (Reynolds & Volkmar, 1984).

3. Furthermore, the teaming effort of the classroom teachers and the remedial teachers can facilitate the process of integrating remedial education with the mainstream curricula, thus increasing the continuity and consistency in the student's program (Ferguson & Adams, 1982; Reynolds & Volkmar, 1984).

4. According to Reynolds & Volkmar (1984), as a result of team teaching, there may be a change in the perception of special education within the school. The resource room teacher, who works daily in the regular classroom and who assists all students in the class, may be perceived more as an educator than as a special educator. This changed perception means that students who also spend part of the day in the resource room are simply entering another classroom, thus reducing the chance of being singled out as different.

For those who perceive team teaching as an alternative to the traditional withdrawal model, team teaching allows both the classroom teacher and the special educator to meet the needs of LD students within the mainstream environment in more efficient and effective ways (Armbruster & Howe, 1985). Some of the acclaimed benefits are:

1. <u>More consistent and focused programs for LD students:</u> Being present in the regular class setting, the special educator can focus more on reinforcing skills taught by the classroom teachers. The instructional program can be more easily integrated within the regular classroom curriculum (Bean & Eichelberger, 1985; Thomas, 1986).

2. More individualized instruction as a result of better utilization of staff potentials:

In-class teaming approach can capitalize on the strengths of both the content area teachers and the special educators to assess student competencies, to plan and implement appropriate instruction, and to evaluate student performance (Reynolds & Volkmar, 1984). For instance, "The regular teacher provides extensive knowledge of content and is the appropriate team member to identify concepts necessary to meet curriculum objectives" while the special educator "has expertise in individualizing the instructional program, is a resource for alternative materials and instructional tools, ..." (Armbruster & Howe, 1985). With two teachers sharing ideas and expertise, the curriculum may be more effectively modified to meet individual student needs (Reynolds & Volkmar, 1984; Sargent, Swartzbaugh, & Sherman, 1981).

3. Greater variety of instructional strategies:

Joint planning and implementation will promote additional feedback from the team teachers for alternate strategies and instructional materials, thus encouraging versatility and creativity in teaching methods (Reynolds & Volkmar, 1984; Garvar & Papania, 1982). As a result, students can be exposed to a wide range of educational experiences and receive remedial help in a variety of contexts (Ferguson & Adams, 1982; Garvar & Papania, 1982).

4. Better learning environment for LD students:

In-class teaming approach can accommodate a wide range of student abilities within a class (Armbruster & Howe, 1985). This offers the LD students stronger peer models and an environment more challenging than the special class (Sargent, Swartzbaugh, & Sherman, 1981). Furthermore, within the mainstream environment, the special education students in the classes see themselves as contributing members of a group rather than being "different" (Armbruster & Howe, 1985; Ferguson & Adams, 1982).

5. Spillover effects to other students:

Team teaching allows resource teachers an opportunity to serve more students rather than just a select few (Armbruster & Howe, 1985; Lavers, Pickup & Thomson, 1986). Other non-LD students can benefit from the team efforts and the special expertise that each team member brings to the classroom (Sargent, Swartzbaugh, & Sherman, 1981; Thomas, 1986). This is particularly beneficial to those students who need special help but would not otherwise have the opportunity for it (Armbruster & Howe, 1985).

6. More cooperation between classroom teachers and special educators:

The teaming effort will help both the regular classroom teacher and the resource teacher to improve their understanding of each other's problems and to benefit from

each other's expertise (Ferguson & Adams, 1982; Thomas, 1986). After all, joint planning and implementation facilitates the special education teachers' roles in consultation, training and communication (Reynolds & Volkmar, 1984). For instance, through team teaching, both teachers can share observations and instructional strategies on a daily basis. The in-class team-teaching setting also provides a natural environment for the special educator to demonstrate specific teaching strategies (Reynolds & Volkmar, 1984). Credibility is established "through actions as well as words." This in turn facilitates curriculum modification. As Reynolds and Volkmar (1984) point out, "When the special educator is equally responsible for planning and implementing new techniques, those changes become more palatable to the classroom teacher."

5.4 Types of Services

In order to tap the full potential of team teaching, special education teachers are expected to participate in three major roles - in-class team instruction, joint curriculum planning, and consultation (Lewis, 1984).

1. The special educator should participate in <u>all</u> aspects of instruction within the class setting, for example assisting in actual instruction and monitoring of student performance (Sargent, Swartzbaugh, & Sherman,

1981; Armbruster & Howe, 1985). Depending on the degree of implementation, some resource teachers work in one or two regular classrooms and spend the remainder of their time in the resource room, while others work in regular classrooms exclusively (Reynolds & Volkmar, 1984).

2. Another vital function, which has often been neglected in practice, is team planning. Ideally, the content area teacher and the special educator work together to define the structure of individual courses (content, objectives, activities, and materials), the instructional strategies, and the evaluation techniques to be used (Armbruster & Howe, 1985).

3. The special educator should also act as a resource person for regular teachers "by locating adapted materials, matching learning styles with specific teaching strategies, designing behaviour modification plans, etc." in order to meet all needs in their classrooms (Armbruster & Howe, 1985; Hart, 1986).

Roles assumed by either teacher may shift among lead teacher, team teacher, tutor, small group leader, curriculum planner, or classroom manager (Reynolds & Volkmar, 1984).

5.5 Conditions for Successful Implementation of the Model

As with other service delivery models, effective implementation of team teaching depends upon certain preconditions.

Staff development

An in-class teaming program is apparently not easy to implement. There are, for example, problems of leadership or control when two instructors are in the classroom. An early study by Bean (1979) shows most regular classroom teachers hesitant and unwilling to share their domain with another adult. A similar finding is reported in Bean and Eichelberger's more recent survey (1985). This attitude is a deterrent to team teaching. As Reynolds & Volkmar (1984) put it, "The goal of the program could be quickly short-circuited if the special educator's presence is viewed as an intrusion." To overcome this, staff development efforts are necessary. Both special educators and regular class teachers should be trained and educated to work with others in a team situation (Bean, 1979; Bean and Eichelberger, 1985). Some of these teaming skills include (1) techniques for offering encouragement and support, (2) steps in problem-solving orientation to planning instruction, (3) strategies for effective communication, and (4) joint planning with general educational development goals and

specialized objectives for learning disabilities (Carlson, et al, 1984).

Role definition:

Clear role definition is crucial in team teaching (Reynolds & Volkmar, 1984). Role ambiguity can be a serious problem when more than one adult is working in the classroom. As Thomas and Jackson (1986) put it, "staff may be uncertain of their own function once additional people are present, and indeed the 'special' staff may not work as effectively as they would wish unless they are quite clear about their role." Bean and Eichelberger (1985) in their study also found that one of the special educators' complaints was the ambiguity of their role in their in-class program.

According to Thomas and Jackson (1986), "One possible way of delineating the work of different people in the classroom lies in 'room management' procedures ..." p.28 (See below for more detailed discussion on the 'room management' procedures.) With clearly defined classroom structure, role ambiguity can be reduced. However, role clarity does not mean rigidity. Indeed, Thomas (1985, 1986) further suggests the idea of role rotation among the team teachers if possible. "Rotation ... allows for people to feel job satisfaction in fulfilling a range of tasks, and heightened job satisfaction makes for effectiveness." (Thomas, 1986).

Classroom organization and management:

Restructuring of conventional classroom management is necessary to accommodate the additional staff and the diverse needs of students in the classroom. Team teaching is supposed to support varied instructional strategies such as large and small group lectures, individualized instruction, teacher or peer tutoring programs, and computer-assisted instruction (Armbruster & Howe, 1985; Reynolds & Volkmar, 1984). If individualized instruction is desired, for example, deliberate and careful planning has to be made in order to ensure adequate individual attention. Bean and Eichelberger (1985) found in their survey that special educators tended to spend more time teaching groups and less time with individuals during the in-class program. The Adaptive Learning Environments Model (ALEM) discussed in Carlson, Ellison and Dietrich's paper (1984) is an attempt to design individualized instruction for team teaching setting.[1] On the other hand, if cooperative learning is desired, the Cooperative Goal Structuring Model and the Process-Consultation Model, also described in Carlson et al. (1984), may provide helpful guidelines in this respect.[2]

In England, special 'room management' (RM) procedures were devised and tested as a way of deploying additional staff to support both individual and small-group instruction (Thomas and Jackson, 1986; Thomas, 1985; Thomas, 1986). Two important roles are delineated - 'individual helper' and 'activity manager'. The former provides individual help to a series of students (with not

more than 15 minutes with each student), while the latter concentrates on maintaining the engagement of the rest of the class, who will usually be organized into groups. According to the advocates, the team teachers can switch roles within the hour lesson. The idea is to balance individual teaching with class or group teaching. According to Thomas (1985; 1986), RM can substantially increase time for individual instruction and can heighten the engagement of those students who have been easily distracted.

Furthermore, in order to enhance positive social integration, special educators should make deliberate attempts to structure their programs in such a way that students can observe appropriate modeling and imitate correct social behaviour (Reynolds & Volkmar, 1984). Also, in view of the more competitive environment of the mainstream classroom, the teacher team should design the class environment with a support system that is not threatening to the LD students (Sargent, Swartzbaugh, and Sherman, 1981).

Class composition:

It is important to have a "significant" number of LD students in the classroom so that the special education teacher's time can be used effectively (Reynolds and Volkmar, 1984; Thomas, 1986). However, it should also be cautioned that team teaching must not become an enlarged self-contained classroom. As

Armbruster and Howe (1985) point out, it is imperative that "such team-taught classes consist of a mix of learners who will benefit individually and have the potential to positively influence one another."

Time:

Bean and Eichelberger's study reported on the teachers' problems with scheduling and inadequate joint planning time. Since team planning is essential for the success of the program, joint planning should be incorporated into their work schedule (Garvar & Papania, 1982; Reynolds & Volkmar, 1984; Lavers, Pickup & Thomson, 1986).

Administrative support:

Finally, but by no means least, is the initiation and continuous support by school administrators (Garvar & Papania, 1982; Reynolds & Volkmar, 1984; Wang & Birch, 1984).

5.6 Evaluation Studies on the Model

There is a paucity of empirically based research on team teaching. Nonetheless, two major types of findings can be gathered from the available published reports:

1. the effects of team teaching on students; and

2. the relationship between regular classroom teachers and special education teachers.

The effects of team teaching on students:

In Iowa City, several secondary schools implemented a team-teaching model wherein the content area teachers teamed up with the special educators "to address the needs of underachievers, reluctant learners, and learning disabled." The model was offered as an alternative to the traditional pull-out program (Armbruster & Howe, 1985). Daily school and class records indicated an improvement in attendance patterns. In addition, testing results show that students were learning. Twelve out of 18 seniors completed their required courses for graduation. The teachers involved also expressed "surprise and pleasure" at the positive attitude of pupils in the team-taught classes. According to the authors, as a result of the first year's success, the number of regular and special educator team-taught classes grew from 3 at one high school to a total of at least 11 at two junior high and two senior high schools.

The English program at Bettendorf High School, Iowa, was also reported to be successful (Sargent, Swartzbaugh, & Sherman, 1981). The class content of the program remained within the context of the regular English program, but relevant materials and special teaching techniques were employed for LD students. It was reported that within the mainstream environment, LD students achieved and behaved more like their "nonhandicapped" peers.

According to the researchers, the program can serve as a model for other secondary schools.

Carlson, Ellison and Dietrich (1984) conducted a relatively large-scale experimental study on the effectiveness of using team teaching to serve elementary and secondary-school LD students. A specific team-teaching model called Process-Consultation Model Group was developed in Deluth, Minnesota. Both statistical and observational data were collected to ascertain the efficacy of the program. It was found that LD students and other low achieving students attained significantly greater achievement when compared to a control group of students taught by the traditional withdrawal model. Also the experimental group students expressed more satisfaction with the social climate over time than did their counterparts in the control group.

Wang and Birch (1984) undertook a one-year experiment in Pittsburgh to compare the effectiveness of the Adaptive Learning Environments Model (ALEM) and the non-ALEM on elementary-school students. The former was a full-time mainstreaming program in which exceptional students stayed in their regular classroom taught and assisted by their class teachers and special educators. Non-ALEM was the traditional withdrawal model wherein the learning disabled students spent some time each morning in the resource room. Based on their observations, the authors found that full-time mainstreaming approach exceeded the resource room approach in attaining desirable classroom processes (gains in on-task behaviour and independent work), student

attitudes (self-ratings on their cognitive competence, social competence, and general self-esteem were almost identical with regular students), and student achievement in basic skills (reading and math). However, it should be noted that aside from team teaching itself, the ALEM has other important design components - for example, an individually-designed educational plan to accommodate each student's learning strengths and needs; and teaching of self-management skills to enable students to take increased responsibility for their own learning.

Lewis (1984) in England conducted a simple subjective evaluation on a team teaching experiment for secondary-school level. The support teachers worked alongside the subject teachers in teaching, planning and consultation. According to the teachers involved, their students enjoyed the program, spent more time on their learning tasks, and performed better.

The successfulness of the teacher team itself:

Again according to Lewis' brief study (1984), the subject teachers reported that because of their joint effort with the support teachers they had a fuller understanding of the individual nedds of all students, and were more confident in adapting curriculum to their students' needs.

In the Carlson et al. (1984) experiment, it was found that the regular class teachers were satisfied with the in-class team approach. They saw such benefits as more time for feedback, more interactions with each other, and more positive attitudes.

Similar findings are documented in Bean and Eichelberger's (1985) study. It was reported that during the in-class program more feedback, increased interaction and cooperation in planning and teaching occurred.

However, a less optimistic picture was portrayed in Ferguson and Adams' survey study (1982). They evaluated the team-teaching experiences of six secondary schools through interviews with classroom teachers, resource teachers and students involved. All these schools adopted team teaching as an adjunct service to the withdrawal program in varying degrees. It was found that only a minority of the resource teachers being interviewed - five of the 41 - jointly prepared and taught lessons with the content area teachers. Other findings observed in the survey were:

- Most special education teachers "had rarely or never addressed the whole class while the class teacher was in the classroom".

- Most did not have much opportunity to be involved in lesson planning. For those who did, they were involved in preparing some of the work sheets or sometimes modifying existing work sheets for remedial students.

- Nearly all remedial teachers were cast in the role of teachers' aides or assistants. "... the general picture which emerges of the remedial teachers in the classroom is one of passive acceptance and contentment with an

undemanding role. Most accept that it is the class teacher's responsibility to undertake the planning and preparation of lessons and courses and the class teachers, in turn, jealously guard their right to maintain control of the progress of each lesson."

- Furthermore, when asked to compare the benefits of team teaching with those of traditional withdrawal methods, only a minority of classroom teachers and remedial teachers believed team teaching to be a more effective strategy with remedial students; and none found it sensible to abandon 'the withdrawal strategy' entirely and replace it with team teaching.

The evaluation findings cited above reveal some interesting points about team teaching. It is apparent that if the program is deliberately designed as in most of the experiments reported earlier, the program would likely yield positive results. On the other hand, if no special design is involved, as in the case of Ferguson and Adams' survey, shortcomings emerge. This may imply that the effectiveness of team teaching does not rely solely on teaming up regular class teachers and special educators. Other prerequisites - such as staff training, sufficient time allocation for joint planning, clear role definition, and school administrative support - are vital for successful team teaching efforts.

5.7 Limitations of the Model

Ferguson and Adam (1982) raise provoking questions concerning the viability of adopting a team teaching approach as the sole service delivery program for LD students.

> It is important to understand the limitations of the relatively unstructured learning environment of the regular classroom. Remedial students seem to learn more effectively when difficult tasks are broken into gradients of small steps presented one at a time with frequent checks on progress and plenty of opportunities for repetition and practice. Team teaching may not be capable of creating a situation in which these needs can be met. Individual attention, even in a classroom with two teachers, is rarely planned in such a detailed way and is likely to consist of brief and infrequent encounters with those who require further explanation of a particular teaching point,....

Perhaps as Bean and Eichelberger (1985) suggest, some balance between an in-class and withdrawal program may be necessary.

Chapter 6

CONCLUSIONS

So far, we have examined four alternative service delivery models separately. However, as noted earlier, they are not mutually exclusive. They can be viewed as a continuum of services for LD students. In the remainder of the report, we shall look at the four models from an holistic approach and discuss how they can be incorporated to yield optimal outcome. Two points need to be made before proceeding to this discussion.

First, all four models aim at collaboration between special educators and regular educators in the provision of services for LD students. It is believed that many LD students, who display certain academic and behavioural problems, can be assisted within the regular classroom, and do not require "special education" intervention. Hence, the focus of these alternative models is on improving the effectiveness of instruction in the regular classroom through school-based staff support services. This implies a redefinition of roles of both special educators and regular educators. That is, resource teachers should place more emphasis on support services to regular classroom teachers, while the latter should be encouraged to work closely with special educators in attending the needs of

LD students. It is believed that with the integration of efforts from both special and regular educators, more LD students can be served effectively than in the withdrawal programs alone.

Second, none of the models is meant to be a quick and easy means of offering effective and efficient programming for LD students. The successful implementation of these models requires several preconditions: willingness of school staff to consider change; provision of adequate training and time for the staff involved; organizational readiness for the new services; establishment of clear program objectives and role definitions; strong administrative support; and commitment of both regular and special education teachers. Hasty implementation of any of these models can hardly yield any significant impact, and may even be a disservice to the students.

With these points in mind, let us examine how the four models can be incorporated into a continuum of LD services. The notion of integrating regular and special education services for LD students is relatively new to many schools. Under such circumstances, the problem-solving teams (PSTs) may be an ideal model for individual schools to lay the foundation and framework for incorporating and coordinating the school personnel and resources. First of all, PSTs provide a systematic and clearcut structure upon which individual schools can easily model. Second, many of the barriers discussed earlier - such as lack of organizational readiness, teachers' resistance to mainstreaming of special education students, the sometimes

estranged relations between regular classroom and special education teachers, the possible lack of school administrative support - can be reduced with the establishment of an effective school-based, problem-solving team.

- The formation of a formal building-level team will likely increase the school's commitment to the needs of special education students.
- Since regular classroom teachers are supposed to play an active role on the teams, their participation will also likely enhance their attitude and sympathy towards LD students.
- Also, regular classroom teachers and special educators are expected to be equal partners on the team. Their equal status will increase mutual collaboration and trust.
- Finally, most PSTs are composed of various personnel - regular classroom teachers, special education teachers, the school principal, parents, etc. The involvement of the school principal and/or parents facilitates the implementation of special education services.

In short, if properly developed and utilized, PSTs will have the effect of establishing the school's commitment to and teachers' preparedness for integrating special and regular education services for LD students.

Once sufficient maturity in terms of organizational preparedness and teachers' readiness is attained, the teacher consultant model becomes relevant. It is true that through PSTs, classroom teachers could receive regular support from the team members. However, PSTs alone are not adequate. To ensure greater effectiveness, regular classroom teachers require more formal and intensive consultative support. The answer to this is the teacher consultant services. These include provision of inservice training for regular classroom teachers (workshops

and formal courses offered by consulting teachers); day-to-day, one-to-one consultation services (e.g. assisting teachers in developing individualized instruction programs); development of curriculum units and classroom intervention strategies for use by regular teachers; preparation of instructional materials; and program evaluation. It should, however, be noted that these consultative services need to wait until effective professional relationships between the regular classroom teachers and special education teachers are firmly established. Hence, it is suggested that the teacher consultant programs should come after the establishment of PSTs.

Even with consultative support from resource teachers and PSTs, it is not reasonable to expect regular classroom teachers to adequately meet the needs of all the LD students in their classrooms. This is especially true when there are quite a few LD students in a class. In such circumstances, team teaching may be a solution. With in-class cooperation of resource teachers, the workload of regular class teachers can be reduced, while the students themselves can enjoy such benefits as reduction of stigmatization, more individualized attention, and a greater variety of instructional strategies with the presence of two teachers in a classroom.

For the more severely learning disabled students, remedial assistance on a one-to-one basis may be necessary. In those cases, the resource/consultant teacher (R/CT) model may be appropriate. On the one hand, R/CTs can provide special

attention to those students who require such intensive services. On the other hand, with their consultation services to regular classroom teachers, R/CTs can assure greater coordination of resource room programs and regular curricula, and greater involvement of regular teachers to facilitate students' transfer of skills from the resource room to the mainstream setting.

In short, what might be ideal is the incorporation of the various models by capitalizing on the best elements of each. While the practicality of this ideal remains unproven, the hypothesis can be tested. Of course, individual special education teachers could not be expected to perform all the roles inherent in all four models. Certain combinations of duties and staff differentiation have to be considered. With proper adaptation of these models, it seems possible that the goal of serving larger numbers of LD students with the existing personnel and resources available to a school can be achieved.

Notes

Chapter 1. INTRODUCTION

1. According to the Ontario Ministry of Education, a student is identified as LD if he/she has this characteristic: "a learning disorder evident in both academic and social situations that involves one or more of the processes necessary for the proper use of spoken language or the symbols of communication...." (Ontario Ministry of Education, Special Education Information Handbook, 1984). In other words, these students are neither physically handicapped nor mentally disabled students, but are students with certain learning difficulties who are educable. In some literature, the terms "mildly academically handicapped" (MAH) is used to denote the same group of students who need special services because of specific or general learning problems (Madden & Slavin, 1983).

2. A number of interviews were conducted with personnel from a sample of four Toronto secondary schools. It was found that aside from resource room programs, individual schools had attempted to experiment with various service delivery options - such as team teaching between two resource teachers, and special teachers' team.

3. The rising number of students being identified as LD has much to do with the adoption of Bill 82 in 1980 which required an assessment of all school students' learning abilities in "all areas of academic, physical and social functioning".

4. Since the focus of this study is on service delivery options for the existing school-based resource teachers, models with little or no direct involvement of special education teachers will not be included in this study.

5. It should, however, be noted that the emphasis in England is different from that of North America. In the former, much attention is placed on in-class support/assistance to students and team teaching with subject area teachers, while the latter places heavier emphasis on consultation-based support services to classroom teachers (Mills, 1988).

Chapter 2. CONSULTING TEACHER MODEL

1. Indeed, the consulting teacher model adopts Tharp's Triadic Model of Consultation, in which services are offered not directly but through an intermediary. "... all effects proceed to the target via the mediator, none directly from consultant to target." (Tharp, 1975; Reisberg & Wolf, 1986).

2. This information was given by Dr. Harry Silverman during a recent interview (1988). Silverman, a special education faculty member at the Ontario Institute for Studies in Education, has also been a long time consultant to the Wellington County Separate School Board.

3. In the wake of the Public Law 94-142 (Education for All Handicapped Children Act) in the United States in 1975, increasing efforts have been made to identify school students' learning abilities. However, numerous authors also point out that the fast growing number of students being identified as LD has much to do with the mis- and over-classification of students due to the inconsistent and problematic identification process (Refer to Sheppard, 1987; Ysseldyke and Algozzine (1983); Kirk, 1986; and Shepard & Smith, 1983).

4. McGlothlin (1981) and Gilhool & Ginn (1982) discuss some of the advantages of school-based consulting teachers over outside expert consultants. Some of the disadvantages of hiring outside consultants are: (i) extra resources are required; (ii) outside consultants often lack adequate support from and credibility with school staff; (iii) they are not available frequently enough to provide prompt and constant support; and (iv) they are often hired to work on individual cases or to give solutions to problems, with little or no time left for discussing problem-solving skills with teachers. The advantages claimed for school-based consulting teachers are: (i) being a school-based resource person, a consulting teacher can be more readily available to the classroom teachers. Also without any formal teaching responsibilites, the consulting teacher is more flexible in meeting the needs of teachers and other staff members who have a more rigid time schedule; (ii) being a member of the school staff and being familiar with the personalities and teaching styles of the teachers, a consulting teacher can adapt his/her prescriptions to individual teachers' strengths; and (iii) "regular classroom teachers appear to accept and carry out more readily suggestions from a co-worker than from a 'specialist' who only visits the school occasionally or may never have any classroom experience."

5. Hughes & Falk (1981) devoted an entire article to consultation techniques for coping with teacher resistance.

6. According to Huefner (1988), this ratio was not much more than the resource teacher's maximum load in several States (e.g. Utah, Arkansas, and Nebraska). He thus argues that if a consulting teacher were assumed to be capable of handling no more than this, the consulting teacher program might not save as much money as has been claimed.

7. It should, however, be noted that the report fails to state whether the three "control" schools used other service delivery models or no special services at all. Indeed, according to Huefner (1988), "the Knight study, while not plagued with equivocal student outcomes, nonetheless reflects methodological problems. ... the report of the research is silent for such variables as the nature of the curriculum and services in the two sets of schools involved ..., the comparative teacher/pupil ratios, and the extent of intervention time."

8. Information from Dr. Silverman, 1988.

Chapter 3. RESOURCE/CONSULTING TEACHER (R/CT) MODEL

1. During the tracking periods, the "resource teachers had time to pull students out of class for consultation, visit with regular teachers who had preparation periods at that time, develop and monitor student contracts, meet with parents, observe in regular classes, monitor peer tutors..."

2. Bagley and Larsen (1986) did, however, mention the limitation of their study. "Having only an experimental group creates a limitation which prohibits making any generalizations concerning student progress. Another recognized limitation is the exposure of students to two programs and two teachers, thus making it difficult to pinpoint those significant program variables contributing to student achievement."

3. However, Zigmond (1978) did warn that owing to the small sample size of that particular study, cautious interpretation of the findings is required.

Chapter 4. PROBLEM SOLVING TEAM (PST) MODEL

1. Their team membership consists of the school principal, the classroom teachers involved, and special education personnel (the consulting teachers). The purpose is to serve special education students in their mainstream classrooms.

2. The study included a statewide survey, site interviews, teacher questionnaires, and responses of field validation sites.

3. It was a traditional service delivery system, in which school psychologists and special education personnel conducted psychoeducational assessements for special education eligibility. For those students who did not qualify for special education placement, recommendations were provided to their teachers; but no systematic mechanism was in place to encourage follow-up support and ensure implementation.

Chapter 5. TEAM TEACHING MODEL

1. According to the model, each student can work on his/her sets of prescriptions in an appropriate area of the classroom, while members of the teaching team monitor learning activities and engage in directed teaching lessons. Since learning tasks are divided into several chunks, the teacher can frequently and effectively evaluate individual prescriptions and immediately prescribe appropriate learning experiences. As a result, encouragement and reinforcement for work and behaviour are frequent, and assistance for learning difficulties is treated at the time the student is in need. (Carlson, et al., 1984).

2. Both regular and special educators carefully structure heterogeneous small groups to complete academic tasks and/or learn social skills. This may include structuring specific goals to meet the LD pupil's needs in groups, modifying the regular curricula and adapting materials within the group as necessary, setting up a group structure within the classroom,

specifying the objects for the lesson, monitoring pupils as they work, and evaluating group and individual performance. (Carlson, et al., 1984).

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